

US010059

Appl. No. 09/808,377  
Amdt. Dated April 20, 2005  
Reply to Office Action of August 16, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions,  
and listings, of claims in the application:

Listing of Claims:

- 1           1. (currently amended): A stereo camera system  
2     comprising:  
3                 stereo imaging means for outputting at least one  
4     stereo image, said stereo imaging means including:  
5                 a camera; and  
6                 a set of mirrors angled with respect to each other  
7             at a predetermined angle relative to a centrally located  
8             common plane intersecting said camera, each mirror having  
9             adjacent ends positioned at a common point and disposed a  
10            predetermined distance from the camera along the common  
11            plane, for directing light from an object reflected in  
12            said mirrors along a straight line of sight directly from  
13            said mirrors to the camera, for producing a stereo effect  
14            in the output of the camera;  
15                 recognition means for locating an object of interest  
16            in the field of view of the stereo imaging means and at least  
17            one of a distance of the object of interest from the stereo  
18            imaging means and the size of the object of interest; and  
19                 adjusting means for automatically changing at least one  
20            system parameter which affects the spatial resolution of the  
21            object of interest based on at least one of the located

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22 distance of the object of interest from the stereo imaging  
23 means and the size of the object of interest.

1 2. (canceled).

1 3. (previously presented): The stereo camera system of  
2 claim 1, wherein the camera is a still camera and the at least  
3 one stereo image is a still image.

1 4. (previously presented): The stereo camera system of  
2 claim 1, wherein the camera is a video camera and the at least  
3 one stereo image is a sequence of video images.

1 5. (previously presented): The stereo camera system of  
2 claim 1, wherein the adjusting means comprises at least one of:  
3 angle adjustment means for adjusting the  
4 predetermined angle between the set of mirrors;  
5 distance adjustment means for adjusting the  
6 predetermined distance between the camera and the set of  
7 mirrors; and  
8 focal length adjustment means for changing a  
9 focal length of the camera.

1 6. (original): The stereo camera of claim 5, further  
2 comprising a controller for controlling at least one of the  
3 angle, distance, and focal length adjustment means based on an  
4 input signal from the recognition means.

1 7. (canceled).

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1           8.   (canceled).

1           9.   (canceled).

1           10.  (canceled).

1           11.  (previously presented): The stereo camera of claim  
2 1, further comprising a controller for controlling at least one  
3 of the angle, baseline, distance, and focal length adjustment  
4 means based on an input signal from the recognition means.

1           12.  (original): The stereo camera system of claim 1,  
2 wherein the recognition means is a stereo vision system.

1           13.  (canceled).

1           14.  (canceled).

1           15.  (canceled).

1           16.  (canceled).

1           17.  (canceled).

1           18.  (canceled).

1           19.  (canceled).

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1           20. (canceled).

1           21. (currently amended): A method for adjusting a stereo  
2 camera system to control spatial resolution of an object of  
3 interest in the field of view of a stereo imaging means, the  
4 method comprising the steps of:  
5           outputting at least one image from the stereo imaging  
6 means;  
7           locating an object of interest in the field of view of  
8 the stereo imaging means and at least one of the distance of  
9 the object of interest from the stereo imaging means and the  
10 size of the object of interest;  
11           automatically changing at least one system parameter  
12 which affects the spatial resolution of the object of interest  
13 based on at least one of the located distance of the object of  
14 interest from the stereo imaging means and the size of the  
15 object of interest; and  
16           providing said stereo imaging means by further  
17 including the steps of:  
18           using a camera to receive light from said object;  
19           establishing a predetermined angle between a set  
20 of mirrors, the angle being relative to a centrally  
21 located common plane intersecting said camera, and  
22 adjacent ends of said ~~mirrors~~ mirrors being positioned at  
23 a common point of origin; and  
24           establishing a predetermined distance from the camera  
25 and the adjacent ends of said mirrors for reflecting light  
26 from said object from said mirrors along a straight line

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27        of sight directly to said camera, for producing a stereo  
28        effect in the output of the camera.

1           22. (previously presented): A stereo camera system  
2        comprising:  
3           a stereo imaging means including two video cameras,  
4        each camera being angled a predetermined angle and distanced a  
5        predetermined distance with respect to each other and the  
6        object of interest, for outputting at least one stereo image as  
7        a sequence of video images;  
8           recognition means for locating an object of interest  
9        in the field of view of the stereo imaging means and at least  
10       one of a distance of the object of interest from the stereo  
11       imaging means and the size of the object of interest;  
12           adjusting means for automatically changing at least  
13       one system parameter which affects the spatial resolution of  
14       the object of interest based on at least one of the located  
15       distance of the object of interest from the stereo imaging  
16       means and the size of the object of interest, wherein the  
17       adjusting means comprises:  
18           angle adjustment means for adjusting the  
19       predetermined angle of at least one of the two cameras;  
20           baseline adjustment means for adjusting the  
21       predetermined distance between the two cameras;  
22           distance adjusting means for adjusting a distance  
23       between at least one of the two cameras and the object of  
24       interest; and  
25           focal length adjustment means for changing a  
26       focal length of at least one of the two cameras.